**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
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| Transition from TTY to Real-Time Text Technology | ) | CG Docket No. 16-145 |
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| Petition for Rulemaking to Update the Commission's Rules for Access to Support the Transition from TTY to Real-Time Text Technology, and Petition for Waiver of Rules Requiring Support of TTY Technology | ) | GN Docket No. 15-178 |

**T-MOBILE USA, INC. PETITION FOR CLARIFICATION OR, IN THE ALTERNATIVE, RECONSIDERATION**

The Commission's recently adopted Report and Order ("R&O") implementing new rules for the deployment of Real-Time Text ("RTT") established a workable and feasible framework for carriers and manufacturers to deploy reliable, interoperable, and accessible communications technologies.[1] T-Mobile USA, Inc. ("T-Mobile")[2] supports the objective of making RTT available and is pleased that the Commission's new rules provide carriers with the flexibility to implement RTT in the manner that works best for their networks. T-Mobile is implementing RTT and is on track to meet the requirements in the RTT R&O, including the 2019 deadline for all new handsets on its network to be RTT-capable, subject to achievability.

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1 *Transition from TTY to Real-Time Text Technology*; *Petition for Rulemaking to Update the Commission's Rules for Access to Support the Transition from TTY to Real-Time Text Technology, and Petition for Waiver of Rules Requiring Support of TTY Technology*, FCC No. 16-169, CG Docket No. 16-145 & GN Docket No. 15-178 (rel. Dec. 16, 2016) ("RTT R&O").

2 T-Mobile USA, Inc. is a wholly owned subsidiary of T-Mobile US, Inc.

Enabling real-time Internet Protocol ("IP")-based text communications with public safety was one of the key concerns for the Commission as it developed its new rules and T-Mobile supports this objective. However, the RTT R&O, in places, seems to inaccurately describe the way carriers deliver calls to Public Safety Answering Points ("PSAPs") in some cases. T-Mobile therefore requests the Commission clarify carrier obligations with respect to delivery of RTT calls to PSAPs using an Emergency Services IP Network ("ESINet") to ensure that regulatory requirements do not conflict with real-world deployments.[3]

In the RTT R&O, the Commission stated that it disagreed with T-Mobile's statement in the record that requiring carriers to provide transcoding gateways would shift certain obligations currently borne by PSAPs onto carriers.[4] The Commission stated that "[t]he components of 911 call delivery referenced by T-Mobile are all basic 911 elements that carriers have been required to provide when transmitting calls from TTYs under section 20.18 of our rules. Thus, we do not believe that requiring the delivery of RTT 911 calls with these elements would involve any burden shifting."[5] This statement, read on its face, conflicts with the way ESINets are architected and would obligate carriers to take on responsibilities they do not have today, as well

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[3] Today, when T-Mobile delivers calls to a PSAP that uses a selective router, it delivers those calls as circuit-switched calls. Where a T-Mobile customer on an IP-based network places a 911 call to a legacy PSAP, T-Mobile performs the necessary conversion from IP to circuit-switched before it delivers the call to the selective router. This petition does not seek clarification as to this circumstance, but is instead only concerned with the situation where a legacy PSAP is served by an ESINet instead of a selective router.

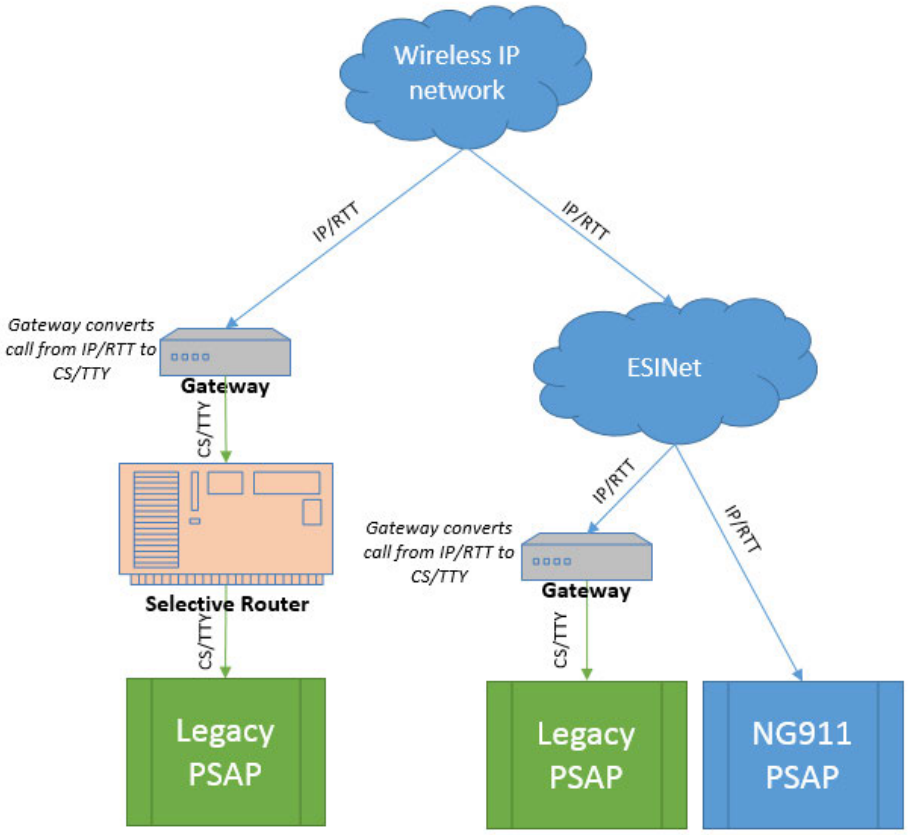
[4] RTT R&O ¶ 46 (citing Reply Comments of T-Mobile USA, Inc., CG Docket No. 16-145 & GN Docket No. 15-178, at 7, n.23 (filed July 25, 2016)).

[5] *Id.*

as impose a burden that is likely not technically achievable. Thus, we ask the FCC to confirm and clarify that it intended carriers to continue to meet their existing duties—*i.e.*, to deliver calls to an ESINet in its compatible form, IP, or to deliver circuit switched communications to a selective router where carriers connect with the PSAP directly through a selective router—but did not intend to add additional obligations, particularly in circumstances where the obligation would create new technical challenges for all parties.

ESInet is an IP-based Emergency Services network architecture that supports voice and data call delivery to PSAPs—both Next Generation 911-capable PSAPs (those that can receive calls directly in IP) and legacy PSAPs (those using circuit-switched technology). ESINets are typically run by specific service providers or by government agencies. Today, ESINet architecture supports the receipt of calls from carriers only in an IP format, meaning that T-Mobile will deliver RTT calls to an ESINet in a native IP format, as depicted in the image below.[6]

[6] *See also, e.g.,* Roger Hixon, NENA Technical Issues Director, Presentation, Next Generation 9-1-1: A Game Changer, SIP Forum, Herndon VA at slides 19-20 (April 24, 2013), http://www.sipforum.org/component/option,com_docman/task,doc_view/gid,619/Itemid,261.




ESINet architecture does not support receipt of circuit-switched calls. Thus, requiring carriers to transcode IP-based RTT calls to a circuit-switched TTY *prior* to delivery to the ESINet would require the ESINet to transcode the TTY call *back* to IP format—that is, to RTT—in order to traverse the ESINet.

Furthermore, it would not be consistent with ESINet architecture—or even feasible—for wireless carriers to perform transcoding from RTT to TTY *after* the call has been delivered to the ESINet. As shown in the diagram above, conversion from IP to circuit switched formats—and therefore conversion from RTT to TTY—occurs at the gateway where the legacy PSAP connects to the ESINet. Requiring wireless carriers to handle transcoding of RTT-to-TTY calls for legacy PSAPs connected through an ESINet would require the carrier to somehow insert itself into the

interconnection between the PSAP and the ESINet—something that would likely not be technically feasible.

T-Mobile therefore asks the Commission to clarify that it did not intend to change the way carriers deliver calls to PSAPs using an ESINet. To the extent the RTT R&O did intend to shift the burden of conversion of RTT to TTY from the ESINet to the carrier, T-Mobile asks the Commission to reconsider that determination and refrain from obligating carriers to perform the conversion from RTT to TTY before delivering such calls to an ESINet.

Respectfully submitted,

*/s/ Steve Sharkey*

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